AVESF 1.9.2.2 V1

REVIEW COMMENTS
SUPPORT PLANS FOR THE ENGINEERING EVALUATION/COST ANALYSIS
WORK PLAN FOR THE AVERY LANDING SITE

14 April 2009

Attachment A - Treatability Study Work Plan

1. Page 2, Section 1.2, 5th paragraph. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to: EPA Removal Action Level Guidelines; EPA Regional Screening Levels; the Idaho Risk Evaluation Manual concentrations for soil; the NOAA Screening Quick Reference Tables, Freshwater Sediment Criteria (Buchman 2008); and the Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems (MacDonald 2000).

2. Page 3, Section 2.1. Clarify that the soil treatability samples will be collected from the six (6) "Test Pits for Soil Sampling" shown on Figure 2 (Treatability Study Sampling Locations).

3. Page 3, Section 2.2. Clarify the goal for preparing three composite samples. For example, are the composite samples intended to represent different target levels of contamination such as low, medium, and high, or are they intended to represent a random or average amount of contamination?

4. Page 3, Section 2.3.2. Three products will be generated; however, Figure 3 lists as many as nine samples (A through I). All samples indicated on Figure 3 should be addressed in the text. Also, the samples discussed in this section should include the sample ID used in Figure 3 as a cross-reference

5. Page 3, Section 2.3.2. Revise this section to match the process outlined in Figure 3. For example, there is no mention in the text of the #10 mesh dry screening step (Sample B to C).

6. Page 4, Section 2.4. In addition to photographs before and after soil washing, required documentation must include documentation of laboratory observations.

7. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must be expanded to include chemical analysis for soil washing rinsate.

8. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

9. Page 5, Section 3.0, 3rd paragraph. The report must include a discussion of analytical results compared against the potential ARARs and TBC materials identified in Comment No. 1.

10. Figure 3. Clarify why Sample B requires crushing for analysis, but Samples A and C do not.

11. Figure 3: The composite (untreated) samples must also be analyzed for the parameters of concern (M, PS, A, L, etc.).

Attachment B - Field Sampling and Analysis Project Plan

12. Section 2.0. Revise to incorporate by reference the Treatability Study Work Plan.

13. Page B-4, Section 3.1.1, 1st paragraph. Clarify why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop.

14. Page B-4, Section 3.1.1, 1st paragraph. Revise to note that soil samples will be obtained by excavating "until groundwater is observed," which is expected to occur at a depth of approximately 10 to 12 feet below ground surface.

15. Page B-4, Section 3.1.1., 1st paragraph. Clarify whether the drilling technique is air rotary or air rotary casing hammer (ARCH). (See also comment recommending hollow stem auger below.)

16. Page B-5, Section 3.1.1.1, 1st bullet. Describe what, if any, additional permitting and/or clearance requirements are associated with the boreholes to be drilled beneath Highway 50.

17. Page B-5, Section 3.1.1.1, 2nd bullet. Describe what, if any, additional locating activities will be performed outside of public rights-of-way.

18. Page B-5, Section 3.1.1.2. The number of soil samples must be revised to allow for the possibility of multiple contaminated soil horizons (e.g., 3 to 5 soil samples dependent on the presence of contaminated soil horizons).

19. Page B-5, Section 3.1.1.2. Clarify whether soil samples will be collected with a lined split-spoon sampler, and whether the soil samples collected at 5-foot intervals will be submitted for laboratory analysis.

20. Page B-5, Section 3.1.1.2. Soils must also be classified for color using a Munsell soil color chart.

21. Page B-5, Section 3.1.1.3, 1st paragraph. The additional field screening methods must also include sheen testing.

22. Page B-5, Section 3.1.1.3, 2nd and 4th paragraphs. A major purpose of this field sampling activity is to investigate the western portion of the Site. Given that no information exists for this portion, it is inappropriate to assume a limited list of analytes. Thus, the test pit soil samples must be evaluated for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

23. Page B-5, Section 3.1.1.3, 2nd paragraph, 2nd bullet. Clarify whether cPAHs or PAHs be analyzed for.

24. Page B-5, Section 3.1.1.3, 4th paragraph. EPA detected PCBs in the product sample in HC-4 and in subsurface soil samples. Thus, PCBs must also be analyzed for in subsurface soils.

25. Page B-6, Section 3.1.1.5. Clarify the following statement: "If boreholes are required to collect soil samples, then the boreholes will be backfilled by a certified drilling contractor with concrete. The boreholes will also be marked with a flush-mount steel plate as described above." Previously in the same paragraph, it states boreholes will be backfilled with bentonite and bentonite grout. Clarify why will concrete be used for boreholes with soil samples? Also, clarify whether soil samples will be collected from all boreholes.

26. Page B-6, Section 3.1.1.6. Clarify why this section states that Golder field personnel will survey boreholes and test pit locations, whereas Section 3.2.1.9 states that a certified surveyor will survey the MWs (i.e., why not use the certified surveyor to survey all locations?).

27. Page B-7, Section 3.2, 1st paragraph. An air-rotary casing hammer will likely mobilize any LNAPL and create a pressure differential in an area of influence around the borehole as the air medium will affect the subsurface, which may bias future water sampling. Thus, clarify why the groundwater monitoring wells will be installed using air-rotary drilling techniques, as opposed to using a hollow stem auger drilling rig or a reverse circulation drilling rig

28. Page B-7, Section 3.2, 2nd paragraph. Provide additional details references, or supporting data for the following statement: "The groundwater is flowing parallel to the river within the eastern portion of the Site (Section 15 Area). The groundwater flow pattern is also influenced from groundwater flowing southward from the mountainside. The Site groundwater appears to change direction and flow toward the southwest and toward the St. Joe River from commingling with mountainside groundwater in the middle portion of the Site (in

the area around well HC-4 and around the boundary between Section 15 and 16 Areas)."

29. Page B-8, Section 3.2.1.2, 2nd paragraph. Clarify why MW GA-1 will be the first drilled and installed well, given that this well is most likely to be in a contaminated area.

30. Page B-9, Section 3.2.1.5, 2nd paragraph, 5th sentence. Revise this sentence to note that screen depth will also depend on seasonal groundwater fluctuations and the groundwater conditions when the wells are installed, to ensure that the screen is installed at appropriate levels.

31. Page B-10, Section 3.2.1.5. Clarify whether the filter pack installation includes swabbing with a surge block.

32. Page B-10, Section 3.2.1.8. Clarify whether using drop tubes will interfere with the ability to get accurate product levels or thicknesses in the wells. In addition, clarify whether the drop tube be used for only the first sampling event or be maintained as a permanent well feature.

33. Page B-12, Section 3.2.2. All new and existing monitoring wells and piezometers must be investigated for LNAPL, and the resulting data must be reported to EPA prior to soil boring and MW installation. If the data indicates that the LNAPL plume has changed since the last investigation, then the locations of the proposed soil borings and MWs will be re-evaluated. Furthermore, any subsequent MW sampling event must also include an investigation of all wells and piezometers (whether to be sampled or not) for the presence and thickness of LNAPL and for groundwater elevations.

34. Page B-12, Section 3.2.2.2. Clarify why floating LNAPL will be collected from only MW-11 and HC-4, as opposed to all wells and piezometers where free product is detected during the LNAPL survey.

35. Page B-13, Section 3.2.2.1. Clarify whether there are any special considerations or procedures to determine product levels in wells that contain the drop tube.

36. Page B-13, Section 3.2.2.1. Clarify what alternative procedure will be used to sample groundwater if the LNAPL proves to be too thick for use of a peristaltic pump.

37. Page B-14, Section 3.2.2.4. Clarify why PCBs will be analyzed only at specific wells, as opposed to all wells.

38. Page B-14, Section 3.2.2.4 (and other sections). The metals must be revised to include aluminum, iron, and manganese.

39. Page B-14, Section 3.2.3. Clarify which wells will be included in hydraulic gradient investigation.

40. Page B-14, Section 3.2.3. Clarify whether the groundwater levels in those wells that contain LNAPL will be adjusted for the presence of the LNAPL, and if yes, what the correction factor will be.

41. Page b-15, Section 3.3. Clarify whether there are any specific plans to evaluate the depth and extent of the petroleum smear zone, especially near the bank of the river?

42. Page B-16, Section 3.3.1.1: Clarify the sediment sampling method and how it will be performed 3 to 4 feet from the river bank.

43. Page B-14, Section 3.3.1.4: Clarify why metals analyses will be performed on only LNAPL samples, and why a filtered water sample will be collected from each surface water location.

44. Page B-21, Section 4.5. Clarify why drilling equipment will not be decontaminated using hot steam, along with detergent and water.

Appendix A – Quality Assurance Project Plan

45. Page 5, Section 3.1. Clarify why NWTPH-HCID is included in this section, but not mentioned in the SAP.

46. Page 5, Section 3.1. Clarify whether the PAHs include all typical PAHs, or just the carcinogenic PAHs.

47. Page 5, Section 3.1, third paragraph. Revise to include a discussion of EPA test methods for PCBs.

48. Page 12, Section 6.1. Revise to include delivery of CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.

49. Page 14, Section 7.0, Field Blanks. Clarify that one field blank per field event will be collected per type of equipment being used/decontaminated.

50. Table QAPP-2. The extraction time for SVOCs in water samples should be 7 days.

51. Tables QAPP-5, 6, and 7. Tables must be revised to also include comparison of analytical results against the potential ARARs and TBC materials identified in Comment No. 1.

52. Table QAPP-5. Revise to include aluminum, iron, and manganese.

53. Table QAPP-6. Revise to note the most recent CLP SOW - OLM04.3.

Attachment C – Health and Safety Plan

54. Page 6, Water Hazards. Revise to address entering the St. Joe River to collect sediment samples.

55. Page 6, Underground Utilities: Note that public utility locates are limited to the highway right-of-way (ROW), and may not be adequate for the area of the Site that is not in the public ROW.

56. Page 6, Remote Site: There is a minor typo here. Wallace and St. Maries are over one *hour* away, not one "mile" away.

Attachment D - Biological Assessment Work Plan

No comment.

Attachment E – Cultural Resource Work Plan

No comment.

From:	Terry Cundy
To:	Earl Liverman/R10/USEPA/US@EPA
Cc:	kjbeaton@stoel.com; dmorell@golder.com; Jim Newberry
Subject:	EPA Comments on Avery Landing Work Plans
Date:	04/29/2009 04:00 PM
Attachments:	Responses to EPA Comments on WP Support Documents 042909.doc

Earl,

Please find attached Potlatch's response to EPA comments on the various work plans associated with the EECA for Avery Landing.

To assist in your evaluation of our responses, we color-coded them as follows:

Green - we agree with the comment and will make the requested change

Yellow - we have some concerns with the requested change and have proposed an alternative

Red - we have significant questions or concerns that we probably need to discuss

We would like to discuss these responses with you as soon as possible...hopefully tomorrow, Thursday, and certainly no later than early Friday. Please recall the revised plans are due to you by COB Monday, May 4.

Please let me know when you are available.

Thanks,

TC

RESPONSE TO REVIEW COMMENTS DATED 14 APRIL 2009
SUPPORT PLANS FOR THE ENGINEERING EVALUATION/COST ANALYSIS
WORK PLAN FOR THE AVERY LANDING SITE

20 April 2009

Attachment A - Treatability Study Work Plan

1. Page 2, Section 1.2, 5th paragraph. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to: EPA Removal Action Level Guidelines; EPA Regional Screening Levels; the Idaho Risk Evaluation Manual concentrations for soil; the NOAA Screening Quick Reference Tables, Freshwater Sediment Criteria (Buchman 2008); and the Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems (MacDonald 2000).

Response: It is not intended to place the treated soil in the river; therefore, sediment guidelines are not appropriate.

2. Page 3, Section 2.1. Clarify that the soil treatability samples will be collected from the six (6) "Test Pits for Soil Sampling" shown on Figure 2 (Treatability Study Sampling Locations).

Response: The text "in the areas shown on Figure 2 will be revised to "as shown on Figure 2".

3. Page 3, Section 2.2. Clarify the goal for preparing three composite samples. For example, are the composite samples intended to represent different target levels of contamination such as low, medium, and high, or are they intended to represent a random or average amount of contamination?

Response: The samples are intended to represent the range of contamination that might be treated.

4. Page 3, Section 2.3.2. Three products will be generated; however, Figure 3 lists as many as nine samples (A through I). All samples indicated on Figure 3 should be addressed in the text. Also, the samples discussed in this section should include the sample ID used in Figure 3 as a cross-reference.

Response: This will be clarified, and cross-referencing added where helpful.

5. Page 3, Section 2.3.2. Revise this section to match the process outlined in Figure 3. For example, there is no mention in the text of the #10 mesh dry screening step (Sample B to C).

Response: This section will be clarified.

6. Page 4, Section 2.4. In addition to photographs before and after soil washing, required documentation must include documentation of laboratory observations.

Response: This documentation will be added.

7. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must be expanded to include chemical analysis for soil washing rinsate.

Response: Chemical analysis of rinsate will be added.

8. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

Response: We do not understand what you mean by "confirmational" sample. Furthermore, we only intend to analyze for the agreed upon COPCs (VOCs, SVOCs, PAHs, PCBs, PAH analyses are already in the plan. Based on site data, soil metals are at background levels and therefore not an issue (if metals are elevated in groundwater it would be from solubilization under reducing conditions caused by TPH). The analytical will be revised to include PCBs for untreated soil samples, and if detected in these samples, PCB analysis will be performed on treated samples also.

9. Page 5, Section 3.0, 3rd paragraph. The report must include a discussion of analytical results compared against the potential ARARs and TBC materials identified in Comment No. 1.

Response: Comparison of treatment results to appropriate cleanup levels will be performed in the EE/CA evaluation process, not in the Treatability Study.

10. Figure 3. Clarify why Sample B requires crushing for analysis, but Samples A and C do not.

Response: All samples will be crushed for analysis. This clarification will be added.

11. Figure 3: The composite (untreated) samples must also be analyzed for the parameters of concern (M, PS, A, L, etc.).

Response: The comment is unclear. See our response to comment #8 above.

Attachment B - Field Sampling and Analysis Project Plan

12. Section 2.0. Revise to incorporate by reference the Treatability Study Work Plan.

Response: The Treatability Study will be referenced in Section 2.1 of the SAP.

13. Page B-4, Section 3.1.1, 1st paragraph. Clarify why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop.

Response: Soil samples will be obtained from not only the vicinity of the former 500,000 gallon fuel tank, but also from the western portion of the site (see Figure SAP-3). The soils and groundwater has been investigated in the vicinity of the former boiler house and machine shop, but soils will be observed and samples of the smear zone will be obtained

with test pits in the general railroad facility area during the treatability study (see Treatability Study Work Plan). The text will specify that the test pits are located in the western half of the property and in the area of the former railroad facility.

14. Page B-4, Section 3.1.1, 1st paragraph. Revise to note that soil samples will be obtained by excavating "until groundwater is observed," which is expected to occur at a depth of approximately 10 to 12 feet below ground surface.

Response: This revision will be made.

15. Page B-4, Section 3.1.1., 1st paragraph. Clarify whether the drilling technique is air rotary or air rotary casing hammer (ARCH). (See also comment recommending hollow stem auger below.)

Response: This text will discuss why air-rotary drilling will be used.

16. Page B-5, Section 3.1.1.1, 1st bullet. Describe what, if any, additional permitting and/or clearance requirements are associated with the boreholes to be drilled beneath Highway 50.

Response: The text will be revised to include this discussion.

17. Page B-5, Section 3.1.1.1, 2nd bullet. Describe what, if any, additional locating activities will be performed outside of public rights-of-way.

Response: The text will be revised to clarify that a private utility locating service will be used.

18. Page B-5, Section 3.1.1.2. The number of soil samples must be revised to allow for the possibility of multiple contaminated soil horizons (e.g., 3 to 5 soil samples dependent on the presence of contaminated soil horizons).

Response: This revision will be made.

19. Page B-5, Section 3.1.1.2. Clarify whether soil samples will be collected with a lined split-spoon sampler, and whether the soil samples collected at 5-foot intervals will be submitted for laboratory analysis.

Response: The text will state that lined split-spoon samplers will be used by drillers to collect soil samples from boreholes. The text will be revised to clarify which samples will be sent to the laboratory and which will be archived.

20. Page B-5, Section 3.1.1.2. Soils must also be classified for color using a Munsell soil color chart.

Response: This will be added.

21. Page B-5, Section 3.1.1.3, 1st paragraph. The additional field screening methods must also include sheen testing.

Response: Sheen testing will be added to the field screening methods.

22. Page B-5, Section 3.1.1.3, 2nd and 4th paragraphs. A major purpose of this field sampling activity is to investigate the western portion of the Site. Given that no information exists for this portion, it is inappropriate to assume a limited list of analytes. Thus, the test pit soil samples must be evaluated for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

Response: Inclusion of these analytes (VOCs, SVOCs except for PAHs such as naphthalene, and metals) are inconsistent with the Work Plan. These analytes were determined to not be soil COPCs for the site.

23. Page B-5, Section 3.1.1.3, 2nd paragraph, 2nd bullet. Clarify whether cPAHs or PAHs be analyzed for.

Response: The text will be revised to state all typical PAHs.

24. Page B-5, Section 3.1.1.3, 4th paragraph. EPA detected PCBs in the product sample in HC-4 and in subsurface soil samples. Thus, PCBs must also be analyzed for in subsurface soils.

Response: This would be inconsistent with the Work Plan. Surface soils in the western portion of the site will be analyzed for PCBs because no data exists at this time for this area of the Site. Additionally, LNAPL samples and groundwater samples collected from new wells will be analyzed for PCBs. Groundwater samples collected from previously installed wells will not be analyzed for PCBs because these wells have already been analyzed for PCBs and all results were well below Federal and State screening levels. As stated in the Work Plan, subsurface soil samples will not be analyzed for PCBs because historical soil data indicates that detectable PCB concentrations have been found [illegible]

25. Page B-6, Section 3.1.1.5. Clarify the following statement: "If boreholes are required to collect soil samples, then the boreholes will be backfilled by a certified drilling contractor with concrete. The boreholes will also be marked with a flush-mount steel plate as described above." Previously in the same paragraph, it states boreholes will be backfilled with bentonite and bentonite grout. Clarify why will concrete be used for boreholes with soil samples? Also, clarify whether soil samples will be collected from all boreholes.

Response: This text will state that boreholes will be backfilled with bentonite and bentonite grout.

26. Page B-6, Section 3.1.1.6. Clarify why this section states that Golder field personnel will survey boreholes and test pit locations, whereas Section 3.2.1.9 states that a certified surveyor will survey the MWs (i.e., why not use the certified surveyor to survey all locations?).

Response: This text will state that borehole and monitoring well locations will be surveyed.

27. Page B-7, Section 3.2, 1st paragraph. An air-rotary casing hammer will likely mobilize any LNAPL and create a pressure differential in an area of influence around the borehole as the air medium will affect the subsurface, which may bias future water sampling. Thus, clarify why the groundwater monitoring wells will be installed using air-rotary drilling

techniques, as opposed to using a hollow stem auger drilling rig or a reverse circulation drilling rig.

Response: This text will discuss why air-rotary drilling will be used.

28. Page B-7, Section 3.2, 2nd paragraph. Provide additional details references, or supporting data for the following statement: "The groundwater is flowing parallel to the river within the eastern portion of the Site (Section 15 Area). The groundwater flow pattern is also influenced from groundwater flowing southward from the mountainside. The Site groundwater appears to change direction and flow toward the southwest and toward the St. Joe River from commingling with mountainside groundwater in the middle portion of the Site (in the area around well HC-4 and around the boundary between Section 15 and 16 Areas)."

Response: This discussion will be revised

29. Page B-8, Section 3.2.1.2, 2nd paragraph. Clarify why MW GA-1 will be the first drilled and installed well, given that this well is most likely to be in a contaminated area.

Response: This discussion will be added.

30. Page B-9, Section 3.2.1.5, 2nd paragraph, 5th sentence. Revise this sentence to note that screen depth will also depend on seasonal groundwater fluctuations and the groundwater conditions when the wells are installed, to ensure that the screen is installed at appropriate levels.

Response: This text will be clarified

31. Page B-10, Section 3.2.1.5. Clarify whether the filter pack installation includes swabbing with a surge block.

Response: The text will discuss how the wells will be developed.

32. Page B-10, Section 3.2.1.8. Clarify whether using drop tubes will interfere with the ability to get accurate product levels or thicknesses in the wells. In addition, clarify whether the drop tube be used for only the first sampling event or be maintained as a permanent well feature.

Response: These clarifications will be added.

33. Page B-12, Section 3.2.2. All new and existing monitoring wells and piezometers must be investigated for LNAPL, and the resulting data must be reported to EPA prior to soil boring and MW installation. If the data indicates that the LNAPL plume has changed since the last investigation, then the locations of the proposed soil borings and MWs will be re-evaluated. Furthermore, any subsequent MW sampling event must also include an investigation of all wells and piezometers (whether to be sampled or not) for the presence and thickness of LNAPL and for groundwater elevations.

Response: This was implied in the Work Plan. This will be clarified in the text.

34. Page B-12, Section 3.2.2.2. Clarify why floating LNAPL will be collected from only MW-11 and HC-4, as opposed to all wells and piezometers where free product is detected during the LNAPL survey.

Response: The basis for only sampling MW-11 and HC-4 (as stated in the Work Plan) will be clarified in the text.

35. Page B-13, Section 3.2.2.1. Clarify whether there are any special considerations or procedures to determine product levels in wells that contain the drop tube.

Response: This text will be clarified.

36. Page B-13, Section 3.2.2.1. Clarify what alternative procedure will be used to sample groundwater if the LNAPL proves to be too thick for use of a peristaltic pump.

Response: It is not anticipated that this condition will occur. This will be clarified in the text.

37. Page B-14, Section 3.2.2.4. Clarify why PCBs will be analyzed only at specific wells, as opposed to all wells.

Response: GA-4 will also be included in the PCB analysis. The decision to only analyze new wells and LNAPL for PCBs was discussed in the Work Plan.

38. Page B-14, Section 3.2.2.4 (and other sections). The metals must be revised to include aluminum, iron, and manganese.

Response: These metals will be included for water analysis

39. Page B-14, Section 3.2.3. Clarify which wells will be included in hydraulic gradient investigation.

Response: The text will state that all wells will be included.

40. Page B-14, Section 3.2.3. Clarify whether the groundwater levels in those wells that contain LNAPL will be adjusted for the presence of the LNAPL, and if yes, what the correction factor will be.

Response: This text will be clarified.

41. Page b-15, Section 3.3. Clarify whether there are any specific plans to evaluate the depth and extent of the petroleum smear zone, especially near the bank of the river?

Response: The smear zone in the river will be investigated during sediment sampling, at which time the entire length of each sediment core sample collected in the river will be visually observed for the presence of petroleum hydrocarbons. Any observations will be noted. The entire core sediment sample will be submitted to the laboratory for analysis. We do not intent to take any sediment samples from under the fabric liner or from below the rip-rap because we do not want to compromise the integrity of the impermeable barrier system. Furthermore, at least one test pit that will be excavated during the treatability study is very

close to the bank of the river (but far enough away not to compromise the impermeable barrier system) and will investigate the petroleum smear zone at that location.

42. Page B-16, Section 3.3.1.1: Clarify the sediment sampling method and how it will be performed 3 to 4 feet from the river bank.

Response: This clarification will be added.

43. Page B-14, Section 3.3.1.4: Clarify why metals analyses will be performed on only LNAPL samples, and why a filtered water sample will be collected from each surface water location.

Response: Metals analysis will be performed on the LNAPL and the surface water samples collected during the near shore investigation. Sediment will not be analyzed for metals because they are not a COPC for this media as per the Work Plan. A filtered water sample for metals is required for comparability to surface water quality criteria.

This clarification will be added.

44. Page B-21, Section 4.5. Clarify why drilling equipment will not be decontaminated using hot steam, along with detergent and water.

Response: This clarification will be added.

Appendix A – Quality Assurance Project Plan

45. Page 5, Section 3.1. Clarify why NWTPH-HCID is included in this section, but not mentioned in the SAP.

Response: This analysis will be removed from the QAPP.

46. Page 5, Section 3.1. Clarify whether the PAHs include all typical PAHs, or just the carcinogenic PAHs.

Response: The text will be revised to clarify that all typical PAHs are meant.

47. Page 5, Section 3.1, third paragraph. Revise to include a discussion of EPA test methods for PCBs.

Response: This discussion will be added.

48. Page 12, Section 6.1. Revise to include delivery of CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.

Response: Potlatch does not think CLP-equivalent data packages are necessary from the laboratory. However, we propose to receive chromatograms for organic analyses from the laboratory and conduct a Tier 2 Validation on the analytical results based on the National Functional Guidance.

49. Page 14, Section 7.0, Field Blanks. Clarify that one field blank per field event will be collected per type of equipment being used/decontaminated.

Response: This text will be revised. Note that this will increase the number of field blanks analyzed.

50. Table QAPP-2. The extraction time for SVOCs in water samples should be 7 days.

Response: This will be revised in the table

51. Tables QAPP-5, 6, and 7. Tables must be revised to also include comparison of analytical results against the potential ARARs and TBC materials identified in Comment No. 1.

Response: We are in the process of gathering these ARARs and TBCs. When we identify these various screening levels we will provide them for comment before adding them into the QAPP. These screening levels might also be useful in the EECA evaluation process.

52. Table QAPP-5. Revise to include aluminum, iron, and manganese.

Response: This will be revised in the table

53. Table QAPP-6. Revise to note the most recent CLP SOW - OLM04.3.

Response: This will be revised in the table.

Attachment C – Health and Safety Plan

54. Page 6, Water Hazards. Revise to address entering the St. Joe River to collect sediment samples.

Response: This information will be included in the HASP.

55. Page 6, Underground Utilities: Note that public utility locates are limited to the highway right-of-way (ROW), and may not be adequate for the area of the Site that is not in the public ROW.

Response: A private utility locate will be included.

56. Page 6, Remote Site: There is a minor typo here. Wallace and St. Maries are over one *hour* away, not one "mile" away.

Response: This will be corrected.

Attachment D - Biological Assessment Work Plan

No comment.

Attachment E – Cultural Resource Work Plan

No comment.

Earl Liverman/R10/USEPA/US
05/04/2009 01:34 PM

To Terry Cundy <Terry.Cundy@potlatchcorp.com>
cc Richard Mednick/R10/USEPA/US@EPA, Duane Newell/LV/USEPA/US@EPA, sghall@ene.com, <kjbeaton@stoel.com>, <dmorell@golder.com>, "Jim
bcc
Subject Re: EPA Comments on Avery Landing Work Plans

Hello,

Attached please find EPA's response to Potlatch's comments regarding the Avery Landing Work Plans. EPA's response are color-coded blue.

EPA Response to Potlatch Comments.doc

Earl Liverman
Federal On-Scene Coordinator
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Terry Cundy <Terry.Cundy@potlatchcorp.com>

Terry Cundy <Terry.Cundy@potlatchcorp.com>
04/29/2009 04:00 PM

To Earl Liverman/R10/USEPA/US@EPA
cc <kjbeaton@stoel.com>, <dmorell@golder.com>, "Jim Newberry" <Jim.Newberry@potlatchcorp.com>
Subject EPA Comments on Avery Landing Work Plans

Earl,

Please find attached Potlatch's response to EPA comments on the various work plans associated with the EECA for Avery Landing.

To assist in your evaluation of our responses, we color-coded them as follows:

Green - we agree with the comment and will make the requested change

Yellow - we have some concerns with the requested change and have proposed an alternative

Red - we have significant questions or concerns that we probably need to discuss

We would like to discuss these responses with you as soon as possible...hopefully

From: Earl Liverman
To: Terry Cundy
Cc: Richard Mednick; Duane Newell; sghall@ene.com; kjbeaton@stoel.com; dmorell@golder.com; Jim Newberry
Subject: Re: EPA Comments on Avery Landing Work Plans
Date: 05/04/2009 01:34 PM
Attachments: EPA Response to Potlatch Comments.doc

Hello,

Attached please find EPA's response to Potlatch's comments regarding the Avery Landing Work Plans. EPA's response are color-coded blue.

EPA Response to Potlatch Comments.doc

Earl Liverman
Federal On-Scene Coordinator
USEPA Coeur d'Alene Field Office
1910 Northwest Boulevard, Suite 208
Coeur d'Alene, Idaho 83814
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▼ Terry Cundy <Terry.Cundy@potlatchcorp.com>

Terry Cundy
<Terry.Cundy@potlatchcorp.com>

04/29/2009 04:00 PM

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We would like to discuss these responses with you as soon as possible...hopefully tomorrow, Thursday, and certainly no later than early Friday. Please recall the revised plans are due to you by COB Monday, May 4.

Please let me know when you are available.

Thanks,

TC[attachment "Responses to EPA Comments on WP Support Documents 042909.doc" deleted by Earl Liverman/R10/USEPA/US]

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Please let me know when you are available.

Thanks,

TC[attachment "Responses to EPA Comments on WP Support Documents 042909.doc" deleted by Earl Liverman/R10/USEPA/US]

RESPONSE TO REVIEW COMMENTS DATED 14 APRIL 2009
SUPPORT PLANS FOR THE ENGINEERING EVALUATION/COST ANALYSIS
WORK PLAN FOR THE AVERY LANDING SITE

4 May 2009

Attachment A - Treatability Study Work Plan

1. Page 2, Section 1.2, 5th paragraph. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to: EPA Removal Action Level Guidelines; EPA Regional Screening Levels; the Idaho Risk Evaluation Manual concentrations for soil; the NOAA Screening Quick Reference Tables, Freshwater Sediment Criteria (Buchman 2008); and the Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems (MacDonald 2000).

Response: It is not intended to place the treated soil in the river; therefore, sediment guidelines are not appropriate.

EPA Response: The response does not address the comment. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to the criteria, guidelines, and cleanup standards requested above.

2. Page 3, Section 2.1. Clarify that the soil treatability samples will be collected from the six (6) "Test Pits for Soil Sampling" shown on Figure 2 (Treatability Study Sampling Locations).

Response: The text "in the areas shown on Figure 2 will be revised to "as shown on Figure 2".

EPA Response: The treatability study test pits for soil sampling must also be shown on Figure SAP-3 (EE/CA Investigation Sampling Locations).

3. Page 3, Section 2.2. Clarify the goal for preparing three composite samples. For example, are the composite samples intended to represent different target levels of contamination such as low, medium, and high, or are they intended to represent a random or average amount of contamination?

Response: The samples are intended to represent the range of contamination that might be treated.

EPA Response: The response does not address the comment. First, the work plan must clarify how the three composite soil samples for treatability testing will be prepared. For example, will the three soil samples obtained from six test pit locations be prepared from equal parts of the six test pit samples (i.e., all three treatability composites will essentially be the same) or will they place the six test pits into separate categories, based on relative amounts of contamination present? Are they going to be prepared as three different composites based on relative contamination (low, medium, and high), with one prepared from the two lowest test pits, one prepared with the two middle test pits, and one prepared with the two highest test pits? Additionally, the work plan must specify how the composites will be interpreted to "represent the range of contamination that might be treated." Second,

the work plan must include more information about how the test pit locations will be selected and evaluated for applicability and representativeness. For example, are the test pits randomly selected or biased? What happens if the test pits do not encounter any free product? And, third, analytical testing should be performed and compared to existing data to verify that the samples are, in fact, representative. Analytical testing should be also performed on each of the composite samples to establish a baseline level of contamination prior to any treatability testing, so that an evaluation of the effectiveness of treatment can be made.

4. Page 3, Section 2.3.2. Three products will be generated; however, Figure 3 lists as many as nine samples (A through I). All samples indicated on Figure 3 should be addressed in the text. Also, the samples discussed in this section should include the sample ID used in Figure 3 as a cross-reference.

Response: This will be clarified, and cross-referencing added where helpful.

5. Page 3, Section 2.3.2. Revise this section to match the process outlined in Figure 3. For example, there is no mention in the text of the #10 mesh dry screening step (Sample B to C).

Response: This section will be clarified.

6. Page 4, Section 2.4. In addition to photographs before and after soil washing, required documentation must include documentation of laboratory observations.

Response: This documentation will be added.

7. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must be expanded to include chemical analysis for soil washing rinsate.

Response: Chemical analysis of rinsate will be added.

8. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

Response: We do not understand what you mean by "confirmational" sample. Furthermore, we only intend to analyze for the agreed upon COPCs for this site. PCB and PAH analyses are already in the plan. Based on site data, soil metals are at background levels and therefore not an issue (if metals are elevated in groundwater, it would be from solubilization under reducing conditions caused by TPH). The analytical plan will be revised to include PCBs for untreated soil samples, and if detected in these samples, PCB testing will be performed on treated samples also.

EPA Response: During a first round of treatability testing, specific variables and steps are evaluated for efficacy, success in treatment, etc. The first round of treatability testing will often indicate that specific steps, techniques, fraction sizes, etc., do not work, and the results may indicate that additional steps that were not initially included may be necessary. Therefore, additional rounds of testing to modify the variables as necessary (i.e., to "optimize" treatment) may be required. At the very least, it can be useful to perform a "confirmation" round of testing, in which the optimal treatment scheme is performed again,

perhaps on a larger batch of untreated material, to confirm the results from the first round. The proposed work plan does include three sets of treatability testing, one each on the three composite samples. If all three composite sample are essentially the same, then perhaps the triplicate tests are sufficient to confirm the reproducibility of the treatment. However, depending on the reply to Comment No. 3 above and the nature of each composite, a single round of treatability testing on each may be inadequate to predict full-scale performance.

Thus, as requested above and to account for a viable range of potential treatment alternatives, the scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

9. Page 5, Section 3.0, 3rd paragraph. The report must include a discussion of analytical results compared against the potential ARARs and TBC materials identified in Comment No. 1.

Response: Comparison of treatment results to appropriate cleanup levels will be performed in the EE/CA evaluation process, not in the Treatability Study.

EPA Response: The response does not address the comment. Respondent will compare the analytical results against potential criteria, guidelines, and cleanup standards listed in Comment No. 1, above.

10. Figure 3. Clarify why Sample B requires crushing for analysis, but Samples A and C do not.

Response: All samples will be crushed for analysis. This clarification will be added.

11. Figure 3: The composite (untreated) samples must also be analyzed for the parameters of concern (M, PS, A, L, etc.).

Response: The comment is unclear. See our response to comment #8 above.

EPA Response: The response does not address the comment. Respondent will analyze the composite (untreated) samples for the parameters of concern (M, PS, A, L, etc.). The resulting analytical information will be used to assist with interpreting whether soil washing is effective.

Attachment B - Field Sampling and Analysis Project Plan

12. Section 2.0. Revise to incorporate by reference the Treatability Study Work Plan.

Response: The Treatability Study will be referenced in Section 2.1 of the SAP.

13. Page B-4, Section 3.1.1, 1st paragraph. Clarify why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop.

Response: Soil samples will be obtained from not only the vicinity of the former 500,000 gallon fuel tank, but also from the western portion of the site (see Figure SAP-3). The soils and groundwater has been investigated in the vicinity of the former boiler house and machine shop, but soils will be observed and samples of the smear zone will be obtained with test pits in the general railroad facility area during the treatability study (see Treatability Study Work Plan). The text will specify that the test pits are located in the western half of the property and in the area of the former railroad facility.

EPA Response: The response does not address the comment. First, neither the SAP nor the Treatability Study Work Plan present rationale for placement of the test pits. Second, Respondent did not answer the question why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop. Respondent must provide rationale for placement of the test pits (such as overlaying proposed locations over the historic facility diagram); explain why boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank; and discuss potential limitations associated with the use of two different subsurface investigation techniques at different areas of the site.

14. Page B-4, Section 3.1.1, 1st paragraph. Revise to note that soil samples will be obtained by excavating "until groundwater is observed," which is expected to occur at a depth of approximately 10 to 12 feet below ground surface.

Response: This revision will be made.

15. Page B-4, Section 3.1.1., 1st paragraph. Clarify whether the drilling technique is air rotary or air rotary casing hammer (ARCH). (See also comment recommending hollow stem auger below.)

Response: This text will discuss why air-rotary drilling will be used.

16. Page B-5, Section 3.1.1.1, 1st bullet. Describe what, if any, additional permitting and/or clearance requirements are associated with the boreholes to be drilled beneath Highway 50.

Response: The text will be revised to include this discussion.

17. Page B-5, Section 3.1.1.1, 2nd bullet. Describe what, if any, additional locating activities will be performed outside of public rights-of-way.

Response: The text will be revised to clarify that a private utility locating service will be used.

18. Page B-5, Section 3.1.1.2. The number of soil samples must be revised to allow for the possibility of multiple contaminated soil horizons (e.g., 3 to 5 soil samples dependent on the presence of contaminated soil horizons).

Response: This revision will be made.

19. Page B-5, Section 3.1.1.2. Clarify whether soil samples will be collected with a lined split-spoon sampler, and whether the soil samples collected at 5-foot intervals will be submitted for laboratory analysis.

Response: The text will state that lined split-spoon samplers will be used by drillers to collect soil samples from boreholes. The text will be revised to clarify which samples will be sent to the laboratory and which will be archived.

20. Page B-5, Section 3.1.1.2. Soils must also be classified for color using a Munsell soil color chart.

Response: This will be added.

21. Page B-5, Section 3.1.1.3, 1st paragraph. The additional field screening methods must also include sheen testing.

Response: Sheen testing will be added to the field screening methods.

22. Page B-5, Section 3.1.1.3, 2nd and 4th paragraphs. A major purpose of this field sampling activity is to investigate the western portion of the Site. Given that no information exists for this portion, it is inappropriate to assume a limited list of analytes. Thus, the test pit soil samples must be evaluated for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

Response: Inclusion of these analytes (VOCs, SVOCs except for cPAHs and naphthalene, and metals) are inconsistent with the Work Plan. These analytes were determined to not be soil COPCs for the site.

EPA Response: The response does not address the comment. As noted above, EPA has consistently stated that a major purpose of this field sampling activity is to thoroughly and comprehensively investigate the western portion of the Site because no information exists for this portion. Respondent will evaluate the test pit soil samples for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

23. Page B-5, Section 3.1.1.3, 2nd paragraph, 2nd bullet. Clarify whether cPAHs or PAHs be analyzed for.

Response: The text will be revised to state all typical PAHs.

24. Page B-5, Section 3.1.1.3, 4th paragraph. EPA detected PCBs in the product sample in HC-4 and in subsurface soil samples. Thus, PCBs must also be analyzed for in subsurface soils.

Response: This would be inconsistent with the Work Plan. Surface soils in the western portion of the site will be analyzed for PCBs because no data exists at this time for this area of the Site. Additionally, LNAPL samples and groundwater samples collected from new wells will be analyzed for PCBs. Groundwater samples collected from previously installed wells will not be analyzed for PCBs because these wells have already been analyzed for PCBs and all results were well below Federal and state screening levels for total PCBs. As stated in the Work Plan, subsurface soil samples will not be analyzed for PCBs because all historical soil data indicates that detectable PCB concentrations have been limited to

EPA Response: Analyzing for PCBs while the test pits are open would preclude the need to potentially return at a later date. For example, if PCBs are detected above appropriate criteria, guidelines, or cleanup standards in surface/subsurface soil samples from the western portion of the site or in floating product or groundwater not previously investigated, EPA may require Respondent to perform additional subsurface soil investigation in the western half for PCBs.

25. Page B-6, Section 3.1.1.5. Clarify the following statement: "If boreholes are required to collect soil samples, then the boreholes will be backfilled by a certified drilling contractor with concrete. The boreholes will also be marked with a flush-mount steel plate as described above." Previously in the same paragraph, it states boreholes will be backfilled with bentonite and bentonite grout. Clarify why will concrete be used for boreholes with soil samples? Also, clarify whether soil samples will be collected from all boreholes.

Response: This text will state that boreholes will be backfilled with bentonite and bentonite grout.

26. Page B-6, Section 3.1.1.6. Clarify why this section states that Golder field personnel will survey boreholes and test pit locations, whereas Section 3.2.1.9 states that a certified surveyor will survey the MWs (i.e., why not use the certified surveyor to survey all locations?).

Response: This text will state that borehole and monitoring well locations will be surveyed

27. Page B-7, Section 3.2, 1st paragraph. An air-rotary casing hammer will likely mobilize any LNAPL and create a pressure differential in an area of influence around the borehole as the air medium will affect the subsurface, which may bias future water sampling. Thus, clarify why the groundwater monitoring wells will be installed using air-rotary drilling techniques, as opposed to using a hollow stem auger drilling rig or a reverse circulation drilling rig.

Response: This text will discuss why air-rotary drilling will be used.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding the potential for mobilization of LNAPL.

28. Page B-7, Section 3.2, 2nd paragraph. Provide additional details references, or supporting data for the following statement: "The groundwater is flowing parallel to the river within the eastern portion of the Site (Section 15 Area). The groundwater flow pattern is also influenced from groundwater flowing southward from the mountainside. The Site groundwater appears to change direction and flow toward the southwest and toward the St. Joe River from commingling with mountainside groundwater in the middle portion of the Site (in the area around well HC-4 and around the boundary between Section 15 and 16 Areas)."

Response: This discussion will be revised

29. Page B-8, Section 3.2.1.2, 2nd paragraph. Clarify why MW GA-1 will be the first drilled and installed well, given that this well is most likely to be in a contaminated area.

Response: This discussion will be added.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding the sequence for installation of monitoring wells.

30. Page B-9, Section 3.2.1.5, 2nd paragraph, 5th sentence. Revise this sentence to note that screen depth will also depend on seasonal groundwater fluctuations and the groundwater conditions when the wells are installed, to ensure that the screen is installed at appropriate levels.

Response: This text will be clarified

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment groundwater conditions.

31. Page B-10, Section 3.2.1.5. Clarify whether the filter pack installation includes swabbing with a surge block.

Response: The text will discuss how the wells will be developed.

32. Page B-10, Section 3.2.1.8. Clarify whether using drop tubes will interfere with the ability to get accurate product levels or thicknesses in the wells. In addition, clarify whether the drop tube be used for only the first sampling event or be maintained as a permanent well feature.

Response: These clarifications will be added.

33. Page B-12, Section 3.2.2. All new and existing monitoring wells and piezometers must be investigated for LNAPL, and the resulting data must be reported to EPA prior to soil boring and MW installation. If the data indicates that the LNAPL plume has changed since the last investigation, then the locations of the proposed soil borings and MWs will be re-evaluated. Furthermore, any subsequent MW sampling event must also include an investigation of all wells and piezometers (whether to be sampled or not) for the presence and thickness of LNAPL and for groundwater elevations.

Response: This was implied in the Work Plan. This will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment.

34. Page B-12, Section 3.2.2.2. Clarify why floating LNAPL will be collected from only MW-11 and HC-4, as opposed to all wells and piezometers where free product is detected during the LNAPL survey.

Response: The basis for only sampling MW-11 and HC-4 (as stated in the Work Plan) will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment. In addition, if LNAPL is detected in any well where it was not detected before, or in any new well (including wells installed by EPA or Respondent), Respondent will collect and characterize the LNAPL for the components shown in Section 3.2.2.4 of the project SAP.

35. Page B-13, Section 3.2.2.1. Clarify whether there are any special considerations or procedures to determine product levels in wells that contain the drop tube.

Response: This text will be clarified.

36. Page B-13, Section 3.2.2.1. Clarify what alternative procedure will be used to sample groundwater if the LNAPL proves to be too thick for use of a peristaltic pump.

Response: It is not anticipated that this condition will occur. This will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding an alternative procedure.

37. Page B-14, Section 3.2.2.4. Clarify why PCBs will be analyzed only at specific wells, as opposed to all wells.

Response: GA-4 will also be included in the PCB analysis. The decision to only analyze new wells and LNAPL for PCBs was discussed in the Work Plan.

EPA Response: If PCBs are detected in any new surface/subsurface sample detected above appropriate criteria, guidelines, or regulations, EPA may require Respondent to perform additional PCB investigation.

38. Page B-14, Section 3.2.2.4 (and other sections). The metals must be revised to include aluminum, iron, and manganese.

Response: These metals will be included for water analysis

39. Page B-14, Section 3.2.3. Clarify which wells will be included in hydraulic gradient investigation.

Response: The text will state that all wells will be included.

40. Page B-14, Section 3.2.3. Clarify whether the groundwater levels in those wells that contain LNAPL will be adjusted for the presence of the LNAPL, and if yes, what the correction factor will be.

Response: This text will be clarified.

41. Page b-15, Section 3.3. Clarify whether there are any specific plans to evaluate the depth and extent of the petroleum smear zone, especially near the bank of the river?

Response: The smear zone in the river will be investigated during sediment sampling, at which time the entire length of each sediment core sample collected in the river will be visually observed for the presence of petroleum hydrocarbons. Any observations will be noted. The entire core sediment sample will be submitted to the laboratory for analysis. We do not intent to take any sediment samples from under the fabric liner or from below the rip-rap because we do not want to compromise the integrity of the impermeable barrier system. Furthermore, at least one test pit that will be excavated during the treatability study is very close to the bank of the river (but far enough away not to compromise the impermeable barrier system) and will investigate the petroleum smear zone at that location.

EPA Response: As noted in Comment No. 2 above, the treatability study test pits for soil sampling are not shown on Figure SAP-3, thus it is not possible to discern which treatability test pit is considered to be "very close" to the bank of the St. Joe River. Thus, Respondent must clarify which test pit is referenced, and why one pit is presumed sufficient to adequately evaluate the bank smear zone.

42. Page B-16, Section 3.3.1.1: Clarify the sediment sampling method and how it will be performed 3 to 4 feet from the river bank.

Response: This clarification will be added.

43. Page B-14, Section 3.3.1.4: Clarify why metals analyses will be performed on only LNAPL samples, and why a filtered water sample will be collected from each surface water location.

Response: Metals analysis will be performed on the LNAPL and the surface water samples collected during the near shore investigation. Sediment will not be analyzed for metals because they are not a COPC for this media as per the Work Plan. A filtered water sample for metals is required for comparability to surface water quality criteria.

This clarification will be added.

EPA Response: Respondent will analyze sediment samples for TAL metals.

44. Page B-21, Section 4.5. Clarify why drilling equipment will not be decontaminated using hot steam, along with detergent and water.

Response: This clarification will be added.

Are they going to add hot steam to the SAP, or will they just clarify why they won't use hot steam? We recommend using hot steam because of the viscous nature of the LNAPL.

Appendix A – Quality Assurance Project Plan

45. Page 5, Section 3.1. Clarify why NWTPH-HCID is included in this section, but not mentioned in the SAP.

Response: This analysis will be removed from the QAPP.

46. Page 5, Section 3.1. Clarify whether the PAHs include all typical PAHs, or just the carcinogenic PAHs.

Response: The text will be revised to clarify that all typical PAHs are meant

47. Page 5, Section 3.1, third paragraph. Revise to include a discussion of EPA test methods for PCBs.

Response: This discussion will be added.

48. Page 12, Section 6.1. Revise to include delivery of CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.

Response: Potlatch does not think CLP-equivalent data packages are necessary from the laboratory. However, we propose to receive chromatograms for organic analyses from the laboratory and conduct a Tier 2 Validation on the analytical as it is based on EPA National Functional Guidance.

EPA Response: The response does not address the comment. Respondent will submit CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.

49. Page 14, Section 7.0, Field Blanks. Clarify that one field blank per field event will be collected per type of equipment being used/decontaminated.

Response: This text will be revised. Note that this will increase the number of field blanks analyzed.

50. Table QAPP-2. The extraction time for SVOCs in water samples should be 7 days.

Response: This will be revised in the table

51. Tables QAPP-5, 6, and 7. Tables must be revised to also include comparison of analytical results against the potential ARARs and TBC materials identified in Comment No. 1.

Response: We are in the process of gathering these ARARs and TBCs. When we identify these various screening levels we will provide them for comment before adding them into the QAPP. These screening levels might also be useful in the EECA evaluation process.

52. Table QAPP-5. Revise to include aluminum, iron, and manganese.

Response: This will be revised in the table

53. Table QAPP-6. Revise to note the most recent CLP SOW - OLM04.3.

Response: This will be revised in the table.

Attachment C – Health and Safety Plan

54. Page 6, Water Hazards. Revise to address entering the St. Joe River to collect sediment samples.

Response: This information will be included in the HASP.

55. Page 6, Underground Utilities: Note that public utility locates are limited to the highway right-of-way (ROW), and may not be adequate for the area of the Site that is not in the public ROW.

Response: A private utility locate will be included.

56. Page 6, Remote Site: There is a minor typo here. Wallace and St. Maries are over one *hour* away, not one "mile" away.

Response: This will be corrected.

Attachment D - Biological Assessment Work Plan

No comment.

Attachment E – Cultural Resource Work Plan

No comment.

From:	Terry Cundy
To:	Earl Liverman/R10/USEPA/US@EPA
Cc:	Morell, Doug; Beaton, Kevin J.; Jim Newberry
Subject:	Additional Potlatch Comments
Date:	05/07/2009 11:23 AM
Attachments:	Potlatch Resonses to EPA Responses to Potlatch Comments v2.doc

Earl,

In preparation for our phone call tomorrow we have provided some additional comments in the attached document.

We are looking forward to speaking with you.

Thanks,

TC

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RESPONSE TO REVIEW COMMENTS DATED 14 APRIL 2009
SUPPORT PLANS FOR THE ENGINEERING EVALUATION/COST ANALYSIS
WORK PLAN FOR THE AVERY LANDING SITE

4 May 2009

Attachment A - Treatability Study Work Plan

1. Page 2, Section 1.2, 5th paragraph. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to: EPA Removal Action Level Guidelines; EPA Regional Screening Levels; the Idaho Risk Evaluation Manual concentrations for soil; the NOAA Screening Quick Reference Tables, Freshwater Sediment Criteria (Buchman 2008); and the Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems (MacDonald 2000).

Response: It is not intended to place the treated soil in the river; therefore, sediment guidelines are not appropriate.

EPA Response: The response does not address the comment. The analytical results from the various soil fractions and residuals resulting from soil washing will be compared to the criteria, guidelines, and cleanup standards requested above.

Potlatch: We will include a comparison table of the soil treatment results to the soil and sediment screening levels in the Treatability Study report. We would like to understand EPA's basis for using sediment criteria when the treated soils would not be placed in surface water.

2. Page 3, Section 2.1. Clarify that the soil treatability samples will be collected from the six (6) "Test Pits for Soil Sampling" shown on Figure 2 (Treatability Study Sampling Locations).

Response: The text "in the areas shown on Figure 2 will be revised to "as shown on Figure 2".

EPA Response: The treatability study test pits for soil sampling must also be shown on Figure SAP-3 (EE/CA Investigation Sampling Locations).

Potlatch: We will include the locations of the Treatability Study test pit locations on Figure SAP-3 and describe the sampling effort in the SAP.

3. Page 3, Section 2.2. Clarify the goal for preparing three composite samples. For example, are the composite samples intended to represent different target levels of contamination such as low, medium, and high, or are they intended to represent a random or average amount of contamination?

Response: The samples are intended to represent the range of contamination that might be treated.

EPA Response: The response does not address the comment. First, the work plan must clarify how the three composite soil samples for treatability testing will be prepared. For example, will the three soil samples obtained from six test pit locations be prepared from equal parts of the six test pit samples (i.e., all three treatability composites will essentially be the same) or will they place the six test pits into separate categories, based on relative amounts of contamination present? Are they going to be prepared as three different composites based on relative contamination (low, medium, and high), with one prepared from the two lowest test pits, one prepared with the two middle test pits, and one prepared with the two highest test pits? Additionally, the work plan must specify how the composites will be interpreted to "represent the range of contamination that might be treated." Second, the work plan must include more information about how the test pit locations will be selected and evaluated for applicability and representativeness. For example, are the test pits randomly selected or biased? What happens if the test pits do not encounter any free product? And, third, analytical testing should be performed and compared to existing data to verify that the samples are, in fact, representative. Analytical testing should be also performed on each of the composite samples to establish a baseline level of contamination prior to any treatability testing, so that an evaluation of the effectiveness of treatment can be made.

Potlatch: Bulk samples will be obtained from each of the six test pits. Equal amounts of bulk samples from two test pits will be composited together for a total of three composite samples. The three composite samples represent area differences in soil type and contaminant concentrations. We will specify the compositing sequence and process in the Treatability Study Work Plan. With this approach, the treatability results will reflect both site variability and variability in wash effectiveness.

4. Page 3, Section 2.3.2. Three products will be generated; however, Figure 3 lists as many as nine samples (A through I). All samples indicated on Figure 3 should be addressed in the text. Also, the samples discussed in this section should include the sample ID used in Figure 3 as a cross-reference.

Response: This will be clarified, and cross-referencing added where helpful.

5. Page 3, Section 2.3.2. Revise this section to match the process outlined in Figure 3. For example, there is no mention in the text of the #10 mesh dry screening step (Sample B to C).

Response: This section will be clarified.

6. Page 4, Section 2.4. In addition to photographs before and after soil washing, required documentation must include documentation of laboratory observations.

Response: This documentation will be added.

7. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must be expanded to include chemical analysis for soil washing rinsate.

Response: Chemical analysis of rinsate will be added.

8. Page 4, Section 1.2, 1st paragraph. The scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

[redacted] *We do not understand what you mean by "confirmational" sample.* [redacted]

EPA Response: During a first round of treatability testing, specific variables and steps are evaluated for efficacy, success in treatment, etc. The first round of treatability testing will often indicate that specific steps, techniques, fraction sizes, etc., do not work, and the results may indicate that additional steps that were not initially included may be necessary. Therefore, additional rounds of testing to modify the variables as necessary (i.e., to "optimize" treatment) may be required. At the very least, it can be useful to perform a "confirmation" round of testing, in which the optimal treatment scheme is performed again, perhaps on a larger batch of untreated material, to confirm the results from the first round. The proposed work plan does include three sets of treatability testing, one each on the three composite samples. If all three composite sample are essentially the same, then perhaps the triplicate tests are sufficient to confirm the reproducibility of the treatment. However, depending on the reply to Comment No. 3 above and the nature of each composite, a single round of treatability testing on each may be inadequate to predict full-scale performance.

Thus, as requested above and to account for a viable range of potential treatment alternatives, the scope of laboratory analyses must also be expanded to include collection and analysis of a "confirmational" soil fraction sample, and this sample must be subject to VOCs, SVOCs, metals, PCBs, NWPTH-Dx, and TAL metals.

Potlatch: (1) The three test runs will demonstrate repeatability, thus providing the confirmation requested. (2) The approved EE/CA Work Plan specified the site COPCs by media. Since PCBs were detected in LNAPL, PCBs analysis will be added as stated above. Soil washing neither creates nor destroys chemical compounds. The purpose of identifying COPCs is to limit analytical effort for decision making. We would like to discuss EPA's basis for requesting VOCs, SVOCs and metals in soils for treatability testing.

9. Page 5, Section 3.0, 3rd paragraph. The report must include a discussion of analytical results compared against the potential ARARs and TBC materials identified in Comment No. 1.

Response: Comparison of treatment results to appropriate cleanup levels will be performed in the EE/CA evaluation process, not in the Treatability Study.

EPA Response: The response does not address the comment. Respondent will compare the analytical results against potential criteria, guidelines, and cleanup standards listed in Comment No. 1, above.

Potlatch: We will add a table comparing treatment results to ARARs in the treatability study report.

10. Figure 3. Clarify why Sample B requires crushing for analysis, but Samples A and C do not.

Response: All samples will be crushed for analysis. This clarification will be added.

11. Figure 3: The composite (untreated) samples must also be analyzed for the parameters of concern (M, PS, A, L, etc.).

Response: The comment is unclear. See our response to comment #8 above.

EPA Response: The response does not address the comment. Respondent will analyze the composite (untreated) samples for the parameters of concern (M, PS, A, L, etc.). The resulting analytical information will be used to assist with interpreting whether soil washing is effective.

Potlatch: We do not understand the acronyms EPA used in the comment. Please see Potlatch response to No. 8 EPA comment.

Attachment B - Field Sampling and Analysis Project Plan

12. Section 2.0. Revise to incorporate by reference the Treatability Study Work Plan.

Response: The Treatability Study will be referenced in Section 2.1 of the SAP.

13. Page B-4, Section 3.1.1, 1st paragraph. Clarify why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop.

Response: Soil samples will be obtained from not only the vicinity of the former 500,000 gallon fuel tank, but also from the western portion of the site (see Figure SAP-3). The soils and groundwater has been investigated in the vicinity of the former boiler house and machine shop, but soils will be observed and samples of the smear zone will be obtained with test pits in the general railroad facility area during the treatability study (see Treatability Study Work Plan). The text will specify that the test pits are located in the western half of the property and in the area of the former railroad facility.

EPA Response: The response does not address the comment. First, neither the SAP nor the Treatability Study Work Plan present rationale for placement of the test pits. Second, Respondent did not answer the question why the proposed boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank, as opposed to including other areas such as the former boiler house and machine shop. Respondent must provide rationale for placement of the test pits (such as overlaying proposed locations over the historic facility diagram); explain why boreholes for soil sampling are situated only in vicinity of the former 500,000 gallon fuel oil tank; and discuss potential limitations associated with the use of two different subsurface investigation techniques at different areas of the site.

Potlatch: The rationale that is summarized as follows will be added to the SAP:

- Test pit locations used for obtaining soils samples for treatability testing will be explained in the Treatability Study Work Plan and in the SAP (see response to EPA comment No. 3 above. The treatability study test pit locations will also be added to Figure SAP.
- Boreholes will be used to obtain soil samples in the vicinity of Highway 50, because boreholes will pose less risk to the highway and are able to obtain samples beneath the highway without closing a portion of the highway. These samples are to investigate a portion of the site that was not investigated previously and is a potential source. We would like to discuss with EPA and E & E the use of hollow stem augers for soils sampling at the site.
- The location and rationale for the test pits in the western portion of the site that has also not been previously investigated has been specified in the approved EE/CA Work Plan, but will be restated in the SAP.

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14. Page B-4, Section 3.1.1, 1st paragraph. Revise to note that soil samples will be obtained by excavating "until groundwater is observed," which is expected to occur at a depth of approximately 10 to 12 feet below ground surface.

Response: This revision will be made.

15. Page B-4, Section 3.1.1., 1st paragraph. Clarify whether the drilling technique is air rotary or air rotary casing hammer (ARCH). (See also comment recommending hollow stem auger below.)

Response: This text will discuss why air-rotary drilling will be used.

16. Page B-5, Section 3.1.1.1, 1st bullet. Describe what, if any, additional permitting and/or clearance requirements are associated with the boreholes to be drilled beneath Highway 50.

Response: The text will be revised to include this discussion

17. Page B-5, Section 3.1.1.1, 2nd bullet. Describe what, if any, additional locating activities will be performed outside of public rights-of-way.

Response: The text will be revised to clarify that a private utility locating service will be used.

18. Page B-5, Section 3.1.1.2. The number of soil samples must be revised to allow for the possibility of multiple contaminated soil horizons (e.g., 3 to 5 soil samples dependent on the presence of contaminated soil horizons).

Response: This revision will be made.

19. Page B-5, Section 3.1.1.2. Clarify whether soil samples will be collected with a lined split-spoon sampler, and whether the soil samples collected at 5-foot intervals will be submitted for laboratory analysis.

Response: The text will state that lined split-spoon samplers will be used by drillers to collect soil samples from boreholes. The text will be revised to clarify which samples will be sent to the laboratory and which will be archived.

20. Page B-5, Section 3.1.1.2. Soils must also be classified for color using a Munsell soil color chart.

Response: This will be added.

21. Page B-5, Section 3.1.1.3, 1st paragraph. The additional field screening methods must also include sheen testing.

Response: Sheen testing will be added to the field screening methods.

22. Page B-5, Section 3.1.1.3, 2nd and 4th paragraphs. A major purpose of this field sampling activity is to investigate the western portion of the Site. Given that no information exists for this portion, it is inappropriate to assume a limited list of analytes. Thus, the test pit soil samples must be evaluated for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

[redacted]

EPA Response: The response does not address the comment. As noted above, EPA has consistently stated that a major purpose of this field sampling activity is to thoroughly and comprehensively investigate the western portion of the Site because no information exists for this portion. Respondent will evaluate the test pit soil samples for VOCs, SVOCs, PCBs, NWTPH-Dx, and TAL metals.

Potlatch: Development of COPCs at the site was based on previous investigations and background history. Identification of COPCs for the site provides focus for analytical effort and expenditures. The COPCs for each media has been specified in the approved EE/CA Work Plan. Although no analytical data exists for the western portion of the site, background information indicates that railroad spurs existed in the past. This information suggests that potential releases would not be different than discovered at the railroad facility operations within the remainder of the site. We would like to discuss this issue further with EPA.

23. Page B-5, Section 3.1.1.3, 2nd paragraph, 2nd bullet. Clarify whether cPAHs or PAHs be analyzed for.

Response: The text will be revised to state all typical PAHs.

24. Page B-5, Section 3.1.1.3, 4th paragraph. EPA detected PCBs in the product sample in HC-4 and in subsurface soil samples. Thus, PCBs must also be analyzed for in subsurface soils.

[redacted]

[redacted]

EPA Response: Analyzing for PCBs while the test pits are open would preclude the need to potentially return at a later date. For example, if PCBs are detected above appropriate criteria, guidelines, or cleanup standards in surface/subsurface soil samples from the western portion of the site or in floating product or groundwater not previously investigated, EPA may require Respondent to perform additional subsurface soil investigation in the western half for PCBs.

Potlatch: Potlatch understands EPAs concerns regarding PCBs at the site. Potlatch is willing to risk the potential to resample subsurface soils for PCBs, if necessary.

25. Page B-6, Section 3.1.1.5. Clarify the following statement: "If boreholes are required to collect soil samples, then the boreholes will be backfilled by a certified drilling contractor with concrete. The boreholes will also be marked with a flush-mount steel plate as described above." Previously in the same paragraph, it states boreholes will be backfilled with bentonite and bentonite grout. Clarify why will concrete be used for boreholes with soil samples? Also, clarify whether soil samples will be collected from all boreholes.

Response: This text will state that boreholes will be backfilled with bentonite and bentonite grout.

26. Page B-6, Section 3.1.1.6. Clarify why this section states that Golder field personnel will survey boreholes and test pit locations, whereas Section 3.2.1.9 states that a certified surveyor will survey the MWs (i.e., why not use the certified surveyor to survey all locations?).

Response: This text will state that borehole and monitoring well locations will be surveyed.

27. Page B-7, Section 3.2, 1st paragraph. An air-rotary casing hammer will likely mobilize any LNAPL and create a pressure differential in an area of influence around the borehole as the air medium will affect the subsurface, which may bias future water sampling. Thus, clarify why the groundwater monitoring wells will be installed using air-rotary drilling techniques, as opposed to using a hollow stem auger drilling rig or a reverse circulation drilling rig.

Response: This text will discuss why air-rotary drilling will be used.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding the potential for mobilization of LNAPL.

28. Page B-7, Section 3.2, 2nd paragraph. Provide additional details references, or supporting data for the following statement: "The groundwater is flowing parallel to the river within the eastern portion of the Site (Section 15 Area). The groundwater flow pattern is also influenced from groundwater flowing southward from the mountainside. The Site groundwater appears to change direction and flow toward the southwest and toward the St. Joe River from commingling with mountainside groundwater in the middle portion of the Site (in the area around well HC-4 and around the boundary between Section 15 and 16 Areas)."

Response: This discussion will be revised

29. Page B-8, Section 3.2.1.2, 2nd paragraph. Clarify why MW GA-1 will be the first drilled and installed well, given that this well is most likely to be in a contaminated area.

Response: This discussion will be added.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding the sequence for installation of monitoring wells.

30. Page B-9, Section 3.2.1.5, 2nd paragraph, 5th sentence. Revise this sentence to note that screen depth will also depend on seasonal groundwater fluctuations and the groundwater conditions when the wells are installed, to ensure that the screen is installed at appropriate levels.

Response: This text will be clarified

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment groundwater conditions.

31. Page B-10, Section 3.2.1.5. Clarify whether the filter pack installation includes swabbing with a surge block.

Response: The text will discuss how the wells will be developed.

32. Page B-10, Section 3.2.1.8. Clarify whether using drop tubes will interfere with the ability to get accurate product levels or thicknesses in the wells. In addition, clarify whether the drop tube be used for only the first sampling event or be maintained as a permanent well feature.

Response: These clarifications will be added.

33. Page B-12, Section 3.2.2. All new and existing monitoring wells and piezometers must be investigated for LNAPL, and the resulting data must be reported to EPA prior to soil boring and MW installation. If the data indicates that the LNAPL plume has changed since the last investigation, then the locations of the proposed soil borings and MWs will be re-evaluated. Furthermore, any subsequent MW sampling event must also include an investigation of all wells and piezometers (whether to be sampled or not) for the presence and thickness of LNAPL and for groundwater elevations.

Response: This was implied in the Work Plan. This will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment.

34. Page B-12, Section 3.2.2.2. Clarify why floating LNAPL will be collected from only MW-11 and HC-4, as opposed to all wells and piezometers where free product is detected during the LNAPL survey.

Response: The basis for only sampling MW-11 and HC-4 was stated in the Work Plan. All will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment. In addition, if LNAPL is detected in any well where it was not detected before, or in any new well (including wells installed by EPA or Respondent), Respondent will collect and characterize the LNAPL for the components shown in Section 3.2.2.4 of the project SAP.

Potlatch: LNAPL from other monitoring wells will be sampled if the thickness is greater than 0.5 inches. The Treatability Study bulk samples will represent the smear-zone within the LNAPL plume. Analysis of the pre-treated soils will also provide more information on the chemical content of the LNAPL.

35. Page B-13, Section 3.2.2.1. Clarify whether there are any special considerations or procedures to determine product levels in wells that contain the drop tube.

Response: This text will be clarified.

36. Page B-13, Section 3.2.2.1. Clarify what alternative procedure will be used to sample groundwater if the LNAPL proves to be too thick for use of a peristaltic pump.

Response: It is not anticipated that this condition will occur. This will be clarified in the text.

EPA Response: Respondent must ensure that the proposed clarification addresses specifically the original comment regarding an alternative procedure.

Potlatch: We will mention in the SAP that a bailer will be a contingent method of obtaining the groundwater sample if the LNAPL is too thick for a peristaltic pump.

37. Page B-14, Section 3.2.2.4. Clarify why PCBs will be analyzed only at specific wells, as opposed to all wells.

Response: GA-4 will also be included in the PCB analysis. The decision to only analyze new wells and LNAPL for PCBs was discussed in the Work Plan.

EPA Response: If PCBs are detected in any new surface/subsurface sample detected above appropriate criteria, guidelines, or regulations, EPA may require Respondent to perform additional PCB investigation.

Potlatch: All wells had PCBs analyzed in previous investigations without detections in groundwater. Potlatch understands EPAs concerns regarding PCBs at the site. Potlatch is willing to risk the potential to resample groundwater for PCBs, if necessary.

38. Page B-14, Section 3.2.2.4 (and other sections). The metals must be revised to include aluminum, iron, and manganese.

Response: These metals will be included for water analysis

39. Page B-14, Section 3.2.3. Clarify which wells will be included in hydraulic gradient investigation.

Response: The text will state that all wells will be included.

40. Page B-14, Section 3.2.3. Clarify whether the groundwater levels in those wells that contain LNAPL will be adjusted for the presence of the LNAPL, and if yes, what the correction factor will be.

Response: This text will be clarified.

41. Page b-15, Section 3.3. Clarify whether there are any specific plans to evaluate the depth and extent of the petroleum smear zone, especially near the bank of the river?

Response: The smear zone in the river will be investigated during sediment sampling, at which time the entire length of each sediment core sample collected in the river will be visually observed for the presence of petroleum hydrocarbons. Any observations will be noted. The entire core sediment sample will be submitted to the laboratory for analysis. We do not intent to take any sediment samples from under the fabric liner or from below the rip-rap because we do not want to compromise the integrity of the impermeable barrier system. Furthermore, at least one test pit that will be excavated during the treatability study is very close to the bank of the river (but far enough away not to compromise the impermeable barrier system) and will investigate the petroleum smear zone at that location.

EPA Response: As noted in Comment No. 2 above, the treatability study test pits for soil sampling are not shown on Figure SAP-3, thus it is not possible to discern which treatability test pit is considered to be "very close" to the bank of the St. Joe River. Thus, Respondent must clarify which test pit is referenced, and why one pit is presumed sufficient to adequately evaluate the bank smear zone.

Potlatch: We do not propose to investigate the LNAPL or smear-zone adjacent to the river. The potential to exacerbate releases of LNAPL and impacts to the river is too great. The LNAPL accumulation along the river and releases to the river will be addressed in the EE/CA report.

42. Page B-16, Section 3.3.1.1: Clarify the sediment sampling method and how it will be performed 3 to 4 feet from the river bank.

Response: This clarification will be added

43. Page B-14, Section 3.3.1.4: Clarify why metals analyses will be performed on only LNAPL samples, and why a filtered water sample will be collected from each surface water location.

Response: Metals analysis will be performed on the LNAPL and the surface water samples collected during the near shore investigation. Sediment will not be analyzed for metals because they are not a COPC for this media as per the Work Plan. A filtered water sample for metals is required for comparability to surface water quality criteria.

This clarification will be added.

EPA Response: Respondent will analyze sediment samples for TAL metals.

Potlatch: We would like to discuss EPA's requirement to analyze TAL list of metals in the river sediments if the groundwater analysis does not indicate metals are of concern in the groundwater. Also, absent a comprehensive characterization of background river sediments, such analyses may not be informative.

44. Page B-21, Section 4.5. Clarify why drilling equipment will not be decontaminated using hot steam, along with detergent and water.

Response: This clarification will be added.

Are they going to add hot steam to the SAP, or will they just clarify why they won't use hot steam? We recommend using hot steam because of the viscous nature of the LNAPL.

Appendix A – Quality Assurance Project Plan

45. Page 5, Section 3.1. Clarify why NWTPH-HCID is included in this section, but not mentioned in the SAP.

Response: This analysis will be removed from the QAPP.

46. Page 5, Section 3.1. Clarify whether the PAHs include all typical PAHs, or just the carcinogenic PAHs.

Response: The text will be revised to clarify that all typical PAHs are meant.

47. Page 5, Section 3.1, third paragraph. Revise to include a discussion of EPA test methods for PCBs.

Response: This discussion will be added.

48. Page 12, Section 6.1. Revise to include delivery of CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.

Response: Potlatch does not think CLP-equivalent data packages are necessary from the laboratory. However, we propose to receive chromatograms for organic analyses from the laboratory and conduct a Tier 2 Validation on the analytical results based on EPA National Functional Guidance.

EPA Response: The response does not address the comment. Respondent will submit CLP-equivalent data deliverables from the analytical lab, including raw data and chromatograms, to EPA.
Potlatch: It is Golder's experience that CLP-equivalent laboratory packages are not necessary for quality analytical data. We would like to discuss this requirement with EPA further.

49. Page 14, Section 7.0, Field Blanks. Clarify that one field blank per field event will be collected per type of equipment being used/decontaminated.

Response: This text will be revised. Note that this will increase the number of field blanks analyzed.

50. Table QAPP-2. The extraction time for SVOCs in water samples should be 7 days.

Response: This will be revised in the table

51. Tables QAPP-5, 6, and 7. Tables must be revised to also include comparison of analytical results against the potential ARARs and TBC materials identified in Comment No. 1.

Response: We are in the process of gathering these ARARs and TBCs. When we identify these various screening levels we will provide them for comment before adding them into the QAPP. These screening levels might also be useful in the EECA evaluation process.

52. Table QAPP-5. Revise to include aluminum, iron, and manganese.

Response: This will be revised in the table

53. Table QAPP-6. Revise to note the most recent CLP SOW - OLM04.3.

Response: This will be revised in the table.

Attachment C – Health and Safety Plan

54. Page 6, Water Hazards. Revise to address entering the St. Joe River to collect sediment samples.

Response: This information will be included in the HASP.

55. Page 6, Underground Utilities: Note that public utility locates are limited to the highway right-of-way (ROW), and may not be adequate for the area of the Site that is not in the public ROW.

Response: A private utility locate will be included.

56. Page 6, Remote Site: There is a minor typo here. Wallace and St. Maries are over one *hour* away, not one "mile" away.

Response: This will be corrected.

Attachment D - Biological Assessment Work Plan

No comment.

Attachment E – Cultural Resource Work Plan

No comment.